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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,777	12/29/2000	Joel D. Medlock	9824-033-999	8752

38881 7590 03/15/2004		EXAMINER	
DARBY & DARBY P.C.		LUGO, DAVID B	
P.O. BOX 5257			
NEW YORK, NY 10150-5257	ART UNIT		PAPER NUMBER
	2634		

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)
Office Action Summary	09/751,777		MEDLOCK ET AL.
	Examiner		Art Unit
	David B. Lugo		2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 December 2000</u>.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-27</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 December 2000</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4(4/01), 5(11/01)</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities:

a.   Regarding the related applications listed in page 1 and in page 14, lines 11-13, all

attorney docket numbers should be replaced with corresponding application serial

numbers, and if applicable, patent numbers.

b.   Page 8, line 29, "offset X 214-N" should be --offset N 214-N--.

c.   Page 9, line 28, "circuit 2 202-2" should be --circuit 2 204-2--.

d.   Page 12, line 2, --code sequence 210 and-- should be inserted before "offset 1

code sequence" since code sequence 210 is supplied to computation circuit 204-1.

Claim Objections

2.   Claims 11, 15 and 21 are objected to because of the following informalities:

a.   Claim 11, lines 1-2, "the locally" should be --a locally--.

b.   Claim 15, line 3, "integrating step d)" should be --integrating step e)--.

c.   Claim 21, line 3, "the transmitting device" should be --a transmitting device--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
patent by another filed in the United States before the invention by the applicant for patent, except that an
international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
subsection of an application filed in the United States only if the international application designated the United
States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1, 4, 6, 7, 12, 14 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Struhsaker U.S. Patent 6,128,331.

5.   Regarding claims 1 and 12, Struhsaker discloses a system having a plurality of correlators (1-X) 28 for correlating a first code sequence supplied from PN generator 36, considered to comprise memory, and a received signal having a second code sequence supplied from front end circuitry and precision conversion circuit 26, at a unique phase offset (see col. 3, lines 39-45).

6.   Regarding claim 4 and 14, the computation circuits are coupled in parallel to PN generator 36.

7.   Regarding claims 6 and 17, each of the computation circuits has a unique coupling offset from each other for accessing PN codes (PN-PN$_X$).

8.   Regarding claim 7, the received signal is associated with the first code sequence which is a short PN sequence having an unknown phase (col. 3, lines 8-14), and the second code sequence is a locally generated PN sequence with a known phase produced by PN generator 36.

9.   Claims 1, 3, 12 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Shiue et al. U.S. Patent 6,590,872.

10.   Regarding claims 1 and 12, Shiue et al. disclose a searcher 300 comprising a plurality of computation circuits for performing a correlation operation between a first code sequence and a second code sequence at a unique phase offset, where the first code sequence is contained in received signal samples, and is considered to be stored in memory (see Fig. 3A).

11.   Regarding claims 3 and 15, each of the computation circuits include components for performing a correlation operation 311, and an integrate and dump operation 312.

12.   Claims 1, 8-10, 12, 18, 19 and 21-26 are rejected under 35 U.S.C. 102(e) as being

anticipated by Kohli et al. U.S. Patent 6,393,046.

13.   Regarding claims 1, 12 and 23, Kohli et al. disclose a spread spectrum receiver in Fig. 3

having signal samples 75 stored in memory, associated with a first code sequence, and a plurality

of correlators 74 for performing a correlation between the first code sequence and a second code

sequence generated by code generator 76 at a unique phase offset.

14.   Regarding claim 8, each of the correlators 74 are considered to be coupled to a same

location in the memory containing the signal samples 75.

15.   Regarding claims 9 and 19, Kohli et al. further disclose memory buffer 78 coupled to the

computation circuits for delaying the second code sequence to represent a unique code offset.

16.   Regarding claims 10, 18 and 26, Kohli et al. further disclose that different fractions of a

chip width can be used for delays 78 (col. 18, lines 12-14).

17.   Regarding claim 21, the second code sequence is locally generated via code generator 76,

and the first code sequence is received from a transmitting device.

18.   Regarding claim 22, Kohli et al. disclose that local clocks are generated from a reference

input clock in PLL synthesizer block shown in Fig. 16 (col. 37, lines 6-10).

19.   Regarding claims 24 and 25, Kohli et al. further disclose memory R1/R2 (103/105) and a

processor 101 coupled to memory for providing instructions and data to ASIC 102 (see Fig. 5)

20.   Claims 1, 2, 5, 8, 11-14, 16, 19, 20, 23 and 27 are rejected under 35 U.S.C. 102(e) as

being anticipated by Buehrer et al. U.S. Patent 6,549,565.

21.   Regarding claims 1, 12 and 23, Buehrer et al. disclose a searcher circuit in Fig. 3

comprising a plurality of correlators 36/37 in each of delay stages d_1-d_N for correlating the

spreading code of the user and the received signal samples (col. 4, lines 46-48) having unique

phase offsets by means of delay units 35, where the spreading code is considered to be a first

code sequence accessible via a code generator having memory.

22.   Regarding claims 2 and 13, Buehrer et al. disclose that each of the correlation circuits

comprise a storage buffer 31 containing threshold information to determine the presence of the

signal in any of the delays (col. 4, lines 57-59).

23.   Regarding claims 5, 16 and 27, the searcher is used in a CDMA communication device.

24.   Regarding claim 8, each of the plurality of computation circuits is considered to be

coupled to a same location in the memory.

25.   Regarding claim 11, Buehrer et al. further disclose that the spreading code (first code

sequence) is known by the correlator but the phase of the signal of interest (second code

sequence) is unknown (col. 4, lines 48-50).

26.   Regarding claim 14, Buehrer et al. show in Fig. 3 that the correlations are performed in

parallel.

27.   Regarding claim 19, a unique offset version of the second code sequence (received signal

of interest) is received by each of the computation circuits (see Fig. 3).

28.   Regarding claim 20, the PN code sequence (first code sequence) is considered to be

locally generated and the second code sequence is received from a transmitting device (user).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to **David B. Lugo** whose telephone number is **(703) 305-0954**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

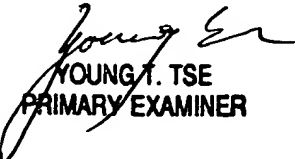P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

dl
3/5/04

YOUNG T. TSE
PRIMARY EXAMINER